ABSTRACT OF THE DISCLOSURE

An optical device includes a transparent material layer having a desired curved surface configuration, a layer including a variable refractive index material having a dielectric constant anisotropy, at least two transparent electrodes arranged to sandwich the transparent material layer and the variable refractive index material, and a driving device supplying a voltage including driving frequencies f1 and f2 between the transparent electrodes. The difference $\Delta\varepsilon$ in the dielectric constant of the variable refractive index material due to the anisotropy is positive at one of the driving frequencies and negative at the other driving frequency.